


# New Frontiers

RESEARCH AND CREATIVE ACTIVITY AT THE UNIVERSITY OF NEBRASKA KEARNEY

A woman with short dark hair is looking towards the camera while working at a desk. In the foreground, a microscope is visible. The background is slightly blurred, showing what appears to be a laboratory or office setting.

## Printing Peace

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The Word On The Street

The Sandburg Project

Fruitful Research

Keeping The Boy  
In Boyhood

Playing Your Way  
To Fitness?

Long Distance  
Bridge Builder





## UNK Faculty Researchers Cross Disciplines, Create Scholarly Campus Environment

**T**he University of Nebraska at Kearney continues to move forward at a rapid pace, driven not only by the momentum of a growing and improving campus—evidenced, in part, by the renovation and construction of a landmark planetarium addition to the Bruner Hall of Science—but also by the continuing vibrancy and accomplishments of our faculty and students.

This publication, the 2009 - 2010 issue of *New Frontiers*, showcases some of the most innovative research and creative activity currently underway at UNK. From nationally and internationally acclaimed printmaker Victoria Goro-Rapoport, whose works continue to be selected for inclusion in highly competitive exhibitions such as the *Miedzynarodowe Triennale Grafiki* (International Print Triennial) in Krakow, Poland, to research on fruit flies and human genes that is being conducted in the laboratory of biologist Kim Carlson, there is an abundance of high quality scholarly inquiry on this campus.

In the area of health, physical education, recreation and leisure studies, professor Greg Brown is studying energy expenditure and fitness benefits of the Wii, while across campus in the humanities, English

professor Kate Benzel has led groundbreaking research on quintessential American poet Carl Sandburg's work. She recovered his "Poems of the Prairie" series from near-obscurity, created a theatrical performance that received rave reviews from multiple regional audiences, and then shared the filmed performance with the statewide public television audience. In a tough global economy, management researcher Susan Jensen's studies suggest "psychological capital" may be as critical to business success as the balance sheet, and gifted education specialist Joan Lewis serves rural and metropolitan populations by teaching online, and by authoring books on instructional techniques for teaching the gifted. Other scholars highlighted in this issue include professor of child and adolescent development Jeanne Stolzer, who recently published important research that questions previously-established theories on ADHD. Finally, Kurt Borchard shines new light on homelessness in Las Vegas. His findings are chronicled not only in prestigious journals but also in his book, *The Word on the Street: Homeless Men in Las Vegas*. We hope you will enjoy reading about the exciting "work of the mind" that is transforming UNK and the world beyond.

DOUGLAS A. KRISTENSEN, J.D.  
Chancellor

# New Frontiers

RESEARCH AND CREATIVE ACTIVITY AT THE UNIVERSITY OF NEBRASKA KEARNEY  
VOLUME II

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YOU CAN *discover* AT UNK





*At the University of Nebraska at Kearney, we have long viewed our mission as a commitment to be one of the nation's premier undergraduate institutions with excellent graduate education, scholarship, and public service.*

A “student-centered” attitude remains at the heart of our campus culture. Along with its legacy of strong teaching and service, UNK builds on and promotes a solid tradition of research. UNK’s strength lies in combining teaching and research into innovative academic experiences. Faculty at UNK are noted for their disciplinary expertise, scholarship, commitment to mentoring students and success in creating research opportunities for their students. When outstanding faculty and talented students are merged within dynamic programs, the result is a highly qualified teaching faculty who are involved in numerous research projects that lead to scholarly accomplishments for both faculty and students.

The teacher-scholars at the University of Nebraska at Kearney engage in research and creative activity to follow their own scholarly curiosity and affect change in their disciplines. The articles featured in this issue of New Frontiers are just a few of the many research and creative activities that are being conducted

at UNK. Much of the research featured here has been published in leading journals, presented at national and international conferences, and has attracted funding from various sources. This recognition speaks to the credibility of our faculty, and their scholarly and creative work.

We are dedicated to supporting our faculty so that they can continue the tradition of scholarship and creative activity. Our faculty’s commitment to cultivate teaching and research programs that educate future leaders affords many with the knowledge and skills to improve the world in which we live.

There is much to be proud of, and there is much to celebrate, at UNK. I hope you enjoy this issue of New Frontiers.

*Kenya S. Taylor*

KENYA S. TAYLOR, Ed.D.  
Dean of Graduate Studies and Research

UNIVERSITY OF NEBRASKA **UNK** KEARNEY



Dr. Susan Jensen



## Business \$ense

In a tough global economy, when more layoffs seem to be announced every day, people around the world are questioning the way they do business. Especially for those thinking about starting their own companies, the answers may never have been more important.

What makes one business succeed, while another down the street fails? How can owners keep costs low and get more production? What conditions bring out the best in employees, from the highest-paid executive to the newest staff member?

According to Dr. Susan Jensen, an associate professor of management, not all the answers can be found on a balance sheet. Part of what it takes to succeed in business, she has learned, is psychological. It is a lesson she is passing on to current and future business leaders through her research and mentoring at UNK.

Psychological capital (PsyCap) refers to the level of efficacy, hope, optimism and resilience people in a business possess. In a soon-to-be published article, Dr. Jensen and her co-authors (Drs. Fred Luthans and James Avey at the University of Nebraska - Lincoln) show empirically that these resources help people in business cope with stress. The better people are at dealing with stress, the reasoning goes, the less

likely they will be to quit a job, suffer from burnout or give up on a business venture.

“Psychological Capital: A Positive Resource for Combating Employee Stress and Turnover” will appear in Human Resource Management magazine later this year. It is the most recent of Dr. Jensen’s offerings on a subject she has been passionate about throughout her career.

“(Psychological factors) aren’t something organizations have thought about before,” Dr. Jensen said, but that might change as she and other advocates spread the word about an approach called positive organizational behavior, and the benefits of psychological capital. “Faculty across the country and the world are now advancing the approach,” she said.

A Sam Walton Fellow, Dr. Jensen has published research on psychological capital since 2002, when she was getting her doctorate in organizational behavior from UNL. Her mentor there was Dr. Luthans, who had written one of the first texts on organizational behavior decades ago and is again pioneering business frontiers with his positive organizational behavior theory. Drawing from positive psychology, positive organizational behavior (POB) encourages managers to move away from the traditional approach of identifying faults in employees that need to be fixed.

“Instead, POB says back up, figure out what positive cognitive strengths this person may have, and build from there,” Dr. Jensen explained.

In their work with psychological capital, Dr. Jensen and her co-authors are also suggesting a new way for businesses to look at



the issue of workplace stress. Rather than focus only on reducing employee stress, businesses could help workers learn to cope with stress by helping them further develop their PsyCap levels. Research indicates the components of psychological capital are not static personality traits, but instead are malleable states that can be developed through training interventions. That developmental aspect presents exciting and practical opportunities to enhance employee performance.

In advancing the positive organizational behavior approach, Dr. Luthans was following the lead of psychology researchers.

*"We are living in a time when it's an even more pressing issue for businesses to succeed"*

Experts in that field had noted relationships between the components of psychological capital and performance in academics, athletics and mental health, but no one had yet explored the link between psychological capital and work performance.

Dr. Luthans' approach resonated with Dr. Jensen, as did his ideas that psychological variables can make a big difference in business owners' success.

She said the idea of psychological capital gave a name to something she had seen for years in the business world.

In the early 1990s, Dr. Jensen helped launch an investment banking firm. She later became a business consultant, and was hired in 1996 as director of the Nebraska Business Development Center housed on the UNK campus. Working with entrepreneurs in all those jobs, she said, she'd seen the effects of psychological capital first-hand.

"I would find some folks simply seemed able to succeed," while others, who had better business networks, education and greater tangible resources, failed. Those successful entrepreneurs had distinctive strengths that helped them better cope with the inevitable stresses of owning a business.

That distinctive difference, Dr. Jensen later discovered, was psychological capital. The widely recognized aspects of human capital (i.e., what you know, in terms of your knowledge, skills and experience), social capital (i.e., who you know, including your network of relationships) and financial capital (i.e., access to funds) are all necessary, but not sufficient, for entrepreneurial success.

Dr. Jensen joined Dr. Luthans' research during her first semester at UNL. Their early articles and presentations laid out the foundation of Dr. Luthans' approach, and established the concept of psychological capital. Dr. Jensen has been the principal author on several articles that apply the PsyCap concept to specific business populations, including entrepreneurs, and the banking and health care industries.

In their latest article, Dr. Jensen and her co-authors present findings from a study of 416 adults. Participants came from a variety of backgrounds and worked in various industries. They were given surveys to record their current PsyCap levels and the effect stress has on them, measured through variables such as their intentions to quit and job search behaviors.

Dr. Jensen said the findings, which show a correlation between high PsyCap levels and employee behavior that is positive for businesses, are significant as a way to get companies interested in developing programs to help their employees combat stress.

"Basically this article's saying 'pay attention,'" Dr. Jensen said, because knowing about psychological capital can potentially help businesses reduce unwanted turnover, increase production and therefore, stay financially healthy.

Dr. Jensen said the next step in PsyCap research will be to further explore the impact of PsyCap on various business outcomes and subgroups, including immigrant entrepreneurs, contingent workers, and bottom line financial performance across cultures and economies.

Another very important subject for future research, according to Dr. Jensen, will be ways to develop the four PsyCap states. If businesses know how they can increase employees' psychological capital, they can develop and implement programs to do just that. While the current article presents the idea that businesses can offer PsyCap training, Dr. Jensen said that more needs to be known about ways to develop effective training methods.

"We are living in a time when it's an even more pressing issue" for businesses to succeed, Dr. Jensen said, adding that the American economy depends on it. Searching for business answers, owners and managers are also influenced today by a culture that is embracing change, looking in new directions and hopefully, thinking about more than just short-term gains.

"That makes me wonder if it will make it even more likely the positive organizational behavior approach will be embraced," Dr. Jensen said.



Looking at the psychological effects of business is a philosophy Dr. Jensen practices with success on the UNK campus in her role as faculty adviser for the Students in Free Enterprise (SIFE) team. The SIFE team, which is comprised of UNK students who

plan and implement educational outreach projects focused on financial literacy, market economics, entrepreneurship, personal success skills, ethics and environmental sustainability, has won awards in numerous regional and national competitions, and in 2007, received the Nebraska Governor's Point of Light award.

The UNK SIFE team was established in 2003, in Dr. Jensen's first year as a full-time faculty member. Last year, the group completed 20 projects, including Smart Money Week activities, a "New Venture Adventure" event for area high schoolers and a business etiquette dinner followed by mock

interviews. The team also supports the KIVA program and loaned money to 16 entrepreneurs in nine countries. They followed the KIVA entrepreneurs' progress via online updates.

"It's an excellent way to practice what they'd be doing in their careers," Dr. Jensen said, adding that the students develop their own agenda and decide on their own projects each year. "The

*"The motto of SIFE is a head for business and a heart for the world, with a mission to use good business practices and make things a little better than how you found them."*

motto of SIFE is a head for business and a heart for the world, with a mission to use good business practices and make things a little better than how you found them."

As the team adviser, Dr. Jensen said she is more of a coach than anything else, and tries to focus her efforts on building the members into a team and modeling the behaviors expected of them. She meets with the students to talk through conflicts, check on their progress and deconstruct completed projects – whether they succeeded or not. In fact, Dr. Jensen said, the talks about what did not work might be the most important.

"I'm really helping them try to understand the consequences of each decision," she said. She also talks with the students about empathy, helping them see each other's point of view and understand other perspectives. She added that while she has been pleased with the team's awards, she is the most happy about the successes those awards do not measure.

"I think I get the most satisfaction out of seeing how the students develop and gain confidence," she said. ■







Dr. Kurt Borchard

UNIVERSITY OF NEBRASKA KEARNEY

# THE WORD ON THE STREET

That morning, like the many mornings before, Kurt Borchard pulled on jeans, an old T-shirt and a worn out, eight-year-old coat before boarding a city bus to the homeless corridor in northern Las Vegas. Tucked inside his coat pockets were a notepad, pen, mini-tape recorder, spare tapes and batteries, and copies of the Informed Consent Statement. All out of sight.

In time, he arrived at the shelter where, like the homeless men surrounding him, he sat and waited along the chain-link fence for the shelter to open. There, he hung out, quietly observing the situation. Waiting. Trying to get up the courage to talk to any of the indigent men nearby. Then, along came a man who was handing out small, lunch box-sized cartons of orange juice to the men gathered there.

"As he tried to hand me a box, I attempted to explain to him that I was not homeless," said Dr. Borchard, UNK professor of sociology. "I was there to do research on homeless men, and I did not want to take away a nutritious drink from someone there who could truly use it. The way that I was dressed, though, combined with my unlikely story, made him think that I was just being prideful."

The man was quick to respond: "Yeah, and I'm the president. Come on, man, you think you're too good to take my juice? If you was really a student, you wouldn't be out here sitting with all these homeless guys; you'd be sitting in your warm dorm room. Don't act like you're above it, like you're better than us. Now, don't say anything. Don't talk. I don't want no conversation. Just take the damn juice."

Surprised by the man's sharp response, as well as his unwillingness to accept the explanation, Dr. Borchard did the only thing he could do, "I took it from him and began drinking."

Despite the man's assessment, Dr. Borchard was not homeless. He was, in fact, doing research on homeless men in Las Vegas—research that regularly took him into the heart of the homeless district as he sought to discover how the men he found there became homeless and what kept them homeless. He began the research as a doctoral student at the University of Nevada, Las Vegas and continues the work as a professor of sociology at UNK.

What he has learned became the basis not only for a doctoral dissertation and publications in prestigious academic journals, but also for a book, *The Word on the Street: Homeless Men in Las Vegas*. The book chronicles the hardships homeless men endure, the proposals city administrators put forth to deal with the homeless, and the ways in which homeless men are portrayed in the media.

*"Homelessness is the result of a complex relationship between the individual homeless man and a social structure."*

In his research on male homelessness, he conducted in-depth interviews of 48 homeless men and two service providers. All were given Informed Consent Statements to sign and assured that they would remain anonymous.

"The names were changed in my final written work to ensure their confidentiality," he said. The 48 ranged in ages from their

A second book is in progress. Homelessness is no small issue in Las Vegas; as early as 1999, there were an estimated 6,700 homeless in the city.

Noting that the majority of homeless persons in Las Vegas are men, Dr. Borchard said: "I chose to focus exclusively on homeless males." He did so, he said, not only to limit the scope of the study, and also because it was easier for him to access shelter facilities for homeless men than it was to access shelters for women.

"Homeless shelters for women in the city also serve as places of refuge for women facing domestic violence," he said, "I found women's shelters in Las Vegas had far stricter rules concerning visitors, particularly male visitors, on their property."

early 20's to early 60's, and included Hispanics, African Americans and Caucasians. He made contact with some of them in shelters, some in abandoned buildings and others on the street.

"Of the men I met, one man, Jerry, stands out," he said. "When I face questions about homelessness, I often think of Jerry and the story of our day together. In the interview, Jerry was open about his thoughts on homelessness and the Las Vegas community's response to his situation."

"The interview," Dr. Borchard said, "also shows how homelessness is the result of a complex relationship between the individual homeless man and a social structure."

In part, Jerry told him: "I came to Las Vegas a year ago... I am homeless. I'm 53, an alcoholic, but I have chronic emphysema. I'm

having a hard time breathing. When you get down and out, you can never get back up. You cannot get off the street... In (Las Vegas), it's bad to be homeless... There's only one place to go, and that's down, deeper and deeper and deeper... and you just die out here."

Dr. Borchard said that Jerry's case articulated the two basic themes—how homeless men become homeless and what problems keep them homeless.

"Male homelessness can be understood partially as the result of individual problems and choices, and partially as the result of social conditions that exacerbate these problems," he said. "Although it is clear that Jerry has made some bad life decisions, it also becomes evident that several local institutions failed to assist him with his health problems and his homelessness in a meaning-







homelessness left an impression on me," he said. As a doctoral student at the University of Nevada, Las Vegas, he turned his attention to male homelessness in the city.

"I soon realized that male homelessness in Las Vegas was very different from what I had encountered in Fairbanks, because of the former's unique social and cultural environment," he said.

In Las Vegas, he discovered that there are far more homeless people situated in the city that has been among the fastest-growing metropolitan areas in the nation. Also unique to Las Vegas is an economy based on gaming and entertainment that, in 2000, drew nearly 40 million tourists.

"I have found that homeless men generally like Las Vegas because of its warm climate and its liberal laws that promote hedonism—in other words, for the same reasons many tourists and residents like it," he said. "Homeless men also initially perceive the city as a place with employment opportunities and excitement, and one where they can get a fresh start." Instead, the newcomers, who typically arrive with minimal savings, face almost insurmountable roadblocks to finding work.

For example, when a new resort casino opened, there were 50,000 phone calls to the job line for the 1,800 available positions. Only those with union cards were considered. Those wanting to work where liquor is served or there is gambling have to have a sheriff's card. To get the card, they are photographed, fingerprinted, interviewed and charged a fee. In addition, workers need a voter's registration card, state ID and a social security card. Once the necessary cards are secured, many often lack reliable transportation, a place to clean up, typed resumes, suitable clothing, contact phone or residential address other than a shelter.

"The range and variety of ways that a particular man became homeless, I found, are as unique and personal as the life story of any individual one meets," he said.

However, patterns, some labeled "personal vulnerabilities," did emerge. Among the common problems were addictions, health and physical disabilities, mental illness, loss of regular employment, being recently released from jail or prison, the loss of a family network and rental problems.

Dr. Borchard was quick to note: "This research does not support the idea that the conditions leading to homelessness are reducible to several categories that can then be used to develop social programs that target specific problems at the expense of others. Homelessness is a condition that several thousand individuals in Las Vegas on any given night may share, but often for entirely different reasons."

While the city likes to advertise "What happens in Las Vegas, stays in Las Vegas," Dr. Borchard's book has brought what happens in Las Vegas to light.

"All homeless men in Las Vegas experience a social environment that in significant respects, hinders them from ending their homelessness," he added, describing the city administration's approach as "immoral."

"As the number of homeless males in Las Vegas is likely to increase, I am hopeful that this research will encourage the city to enact a more humane and charitable approach toward homeless men. The city's future as a popular tourist destination might depend, in part, on its response," he concluded. ■

# The Sandburg Project

UNK's Benzel Gives "New" Song to Prairie Poet's Work. An award-winning researcher, accustomed to publishing her work in books and prestigious academic journals that can be found on the shelves of major libraries across the nation, has found herself in a place far outside her comfort zone—sharing work of an American writer on the stage.

Dr. Kate Benzel's six books, and more than 22 articles, printed in international, national and regional publications, have focused on British modern literature, most often on British author Virginia Woolf. However, it is her concern about American writer Carl Sandburg that has taken her in new directions.

A professor in the UNK Department of English, Dr. Benzel said, "Today, Carl Sandburg is all but forgotten amidst the new technologies and curricula that wrap words through virtual space. His visceral depictions of hardworking people, their vital environments in the city and on the land, do not fit easily into contemporary critical theories of poetry and literature. His poetry seems almost too simple for any critical

analysis, and his politics too obvious for today's complex political machinations."

Her recent research, she said, is an effort to recover Carl Sandburg (1878-1967) from the depths of American literary history and to suggest that his writings—poetry, journalism, reviews, biography of Abraham Lincoln and folklore—embody the essence of American culture: hardy work ethic, simple colloquial speech, deep respect for the landscape and belief in the power of the people—all qualities of American democracy.

"One of the things I discovered was that he has been forgotten, dropped off the literary landscape. Even an eminent American scholar forgot to include Sandburg in



ful way, and that his future did not hold much hope. In sum, Jerry reveals that homeless men have a unique understanding of their problems, which we should listen to."

And Dr. Borchard did. He listened to Jerry and the 47 other homeless men whose stories he recorded in their own words. How they became homeless, their plight, their hopes or hopelessness, their dreams and their nightmares. He listened, and what he heard, he made the focus of his book, which became a finalist for two major awards—the Harry Chapin Media Award and the Association for Humanist Sociology Book Award. The book received a 2006 American Association of University Presses selection award for public secondary school libraries, and today, it is held in more than 400 libraries across the nation as well as in Europe, Asia and Australia.

In a review of the book in *Humanity and Society*, Corey Dolgon wrote: "The qualities that make Borchard's book so good—writing and detailed descriptions; rich and moving ethnographies and a keen eye for the humanity of each subject; and the overall depiction of the parts of Vegas that few tourists will see—will be attractive to humanists, scholars and activists. Well organized and insightful, the book should also be very useful for undergraduate courses on homelessness, poverty and urban studies."

Dr. Borchard was not new to the issues surrounding homelessness when he began his research in Las Vegas. For a time, he had served as the program director for the Men's Transition Program run by the Salvation Army in Fairbanks, Alaska.

"My work experience at the homeless shelter (in Fairbanks) made me realize that even agencies with good intentions, such as the Salvation Army, neither address the larger reasons behind individuals becoming homeless in the first place nor change how certain perspectives seem to justify homelessness.

"I realized during my time as a director that although I made an immediate impact on a few homeless men, I was not engaging the root causes of their problem. The frustration I felt in Fairbanks in trying to alleviate male



his recent six-volume anthology of American literature,” she said. But she hasn’t forgotten Sandburg, nor will most Nebraskans if it is up to her. Dr. Benzel is leading a revival of Sandburg’s works—more specifically, his prairie poetry and *The American Songbag*.

“I noted that very little attention was given to Sandburg’s poetry about the prairie, and to his compilation of American folk songs in *The American Songbag*, both of which I believe confirm him as ‘Poet of the People,’” Dr. Benzel said. “Sandburg performed his vision of the American song and slogan throughout the United States in community venues where everyone was invited and participated. He had a special style of lecture-recital whereby he would read his poetry and play American folk songs on his \$25 guitar to create a performance that ‘wouldn’t bore the audience.’”

Her research on Sandburg took her to the Sandburg Collection at the University of Illinois at Urbana-Champaign Rare Book and Manuscript Library.

“I love archival work—whether it is about Woolf or Sandburg,” she said. “The (Sandburg) collection, which hasn’t been completely cataloged, is mammoth. I discovered a wealth of material on his early career as a platform performer and lecturer. He would copy down notes and stuff them in his pocket. As I did research, I would open a folder and find wadded-up, crumpled pieces of paper.” She also found that Sandburg’s prairie poetry is seldom published. What most seem to remember are his Chicago poems and the Abraham Lincoln biography.

“If that is all you know, you miss what Sandburg is all about,” Dr. Benzel said.

As she continued her research, she realized that “the obvious thing to do would have been to write an article that goes into a journal and ends up on a library shelf. ‘(But) as you get older, you reflect on your place in the universe. You begin to see that your value as a teacher or researcher doesn’t take place only in a classroom or at professional conferences. Though my research methodology had not changed, I decided to do something different with my Sandburg research—to combine its presentation with a public venue.’”

In 2006, with the support of grants from the Nebraska Humanities Council and the UNK Research Services Council, Dr. Benzel began a process that would let her present her work in a way that was new for her, a presentation that has become known as “The Sandburg Project.”

“The Sandburg Project evolved from this simple idea of community, bringing together a group of people—performers

*“My recent research is an effort to recover Carl Sandburg from the depths of American literary history and to suggest that his writings—poetry, journalism, reviews, biography of Abraham Lincoln and folklore—embody the essence of American culture:*



## SUNSET FROM OMAHA HOTEL WINDOW

*INTO the blue river hills  
The red sun runners go  
And the long sand changes  
And to-day is a goner  
And to-day is not worth haggling over.*

*Here in Omaha  
The gloaming is bitter  
As in Chicago  
Or Kenosha.*

*The long sand changes.  
To-day is a goner.  
Time knocks in another brass nail.  
Another yellow plunger shoots the dark.*

*Constellations  
Wheeling over Omaha  
As in Chicago  
Or Kenosha.*

*The long sand is gone  
and all the talk is stars.  
They circle in a dome over Nebraska.*

CARL SANDBURG





and audiences—to celebrate American culture,” she said. “At the risk of seeming artificially patriotic, this project reminds audiences of their roots and national heritage.” Dr. Benzel first collaborated with another UNK English professor, Dr. Charles Peek, and Nebraska singer-songwriter Mike Adams, to develop two summer performances of Sandburg’s work. The three chose to present selections about the Great Plains landscape from Sandburg’s *Cornhuskers* (1918) and *Smoke and Steel* (1922) collections, and folk songs from The American Songbag.

Out of that collaboration, they developed a script to replicate Sandburg’s own lecture-recitals. Dr. Peek, who has an international reputation as a scholar of both William Faulkner and Willa Cather, became one of the voices for the presentation. Adams, who created musical arrangements of selections from The American Songbag for the presentation, became the second. And, Dr. Benzel became the third. The format of each performance has Dr. Benzel serving as a moderator, and giving a pre-performance presentation about Sandburg and his works.

Although she is comfortable within the confines of a university classroom, speaking in front of an audience of the general public was a new experience, she said, explaining, “It was something I had to learn to do.” In June of 2007, the three first brought Sandburg’s poetry and songs to life on the Red Cloud Opera House stage. With seating on a first-come, first-

served basis, the doors opened on a warm Sunday afternoon for the first performance of what had become “Prayers for the People: Carl Sandburg’s Poetry and Songs.” “Both performers brought to the project a wealth of literary and musical expertise, and a real connection to Nebraska,” Dr. Benzel said of Dr. Peek and Adams. The trio’s second performance came two months later on the stage of the Theatre of the American West in Republican City. With the support of a Nebraska Arts Council grant, the three then took the project beyond the two summer performances to the Merryman Performing Arts Center stage in Kearney the following fall. For that performance, they expanded the group to include Nebraskan Ted Kooser (U.S. Poet Laureate 2004-2006) and Adams’ musical group, The Sandtones, comprised of musicians Cristina Seaborn, a fiddler from Minnesota, and Kearneyites Terry Sinnard on bass, and Mike Metzger on banjo and mandolin.

At the Red Cloud Opera House, Theatre of the American West and the Merryman Performing Arts Center, people from the theatres, from the community and the performers all worked together to re-enact Sandburg’s vision, she said, adding, “The program gained immediate attention, because it reached people with the simplicity of the American voice.” Nebraska Educational Telecommunications and UNK saw the value of bringing the program to a larger audience and created a partnership to film an encore performance at the

Merryman. In addition, a series of companion workshops on poetry and songwriting were developed, and offered the day before the performance. The workshops, which were funded by a Nebraska Humanities Council grant, took place at the Frank House museum on the UNK West Campus.

Dr. Benzel brought the participants together to work with professionals one-on-one and in small groups to create their own songs and slogans. Dr. Peek, and UNK Reynolds Chair in Poetry Allison Hedge Coke, coordinated the poetry workshops, “Poetry for the People” and “Literary Landscapes.” Adams produced a lyric writing workshop called “World Melodies.” In conjunction with the workshops, Dr. Mark Van Wienen, a Sandburg scholar and professor at Northern Illinois University, presented a guest lecture titled “Carl Sandburg: Pacifist, Patriot, Revolutionary, Detainee.” The encore performance also drew the attention of Paul Bonesteel, a filmmaker working on the Sandburg documentary, “The Day Carl Sandburg Died.” Bonesteel interviewed both Kooser and Dr. Benzel.

Poems and songs from the workshops introduced the evening, and the performance combined readings from Sandburg’s poetry along with traditional American folk music from The American Songbag. Poems such as Sandburg’s “Prairie,” “Boes” and “Omaha” were combined with folk songs “John Henry” and “St. James Infirmary.” Kooser read several of his poems, including “So This Is Nebraska,” and Mike Adams performed “Sartoria,” a song written for the performance. Partial funding for the encore performance came from the UNK Department of English, the Marlene and Vern Plambeck Foundation, the UNK College of Fine Arts and Humanities, and the Nebraska Arts Council.

In describing the encore performance, Dr. Benzel said, “The performance of ‘Carl Sandburg’s Poetry & Songs: Prayers for the People’ was another success. And by all accounts from Nebraska Educational TV, they had a great shoot.”

On a Sunday afternoon a few weeks after the encore performance, the group—Drs. Benzel and Peek along with Adams and Sinnard—took the program to Broken Bow where they performed in the Custer County Community Center. They were hosted by the Custer County Friends of the Arts. In February of this year, they were invited by McCook Community College to perform at the Fox Theater on Norris Avenue. For that presentation, they were joined by Nebraska State Poet (1982) William Kloeckorn and area musicians. Then, in April, during National Poetry Month, the performance aired on NET-TV.

“The nice thing about The Sandburg Project is that it can be adapted to different situations,” she said. “And it is a lot more rewarding than seeing things in print. Six months after we’ve performed, people walk up to me and ask when we’re going to do it again. No one did that when I wrote a book on Virginia Woolf.”

What’s next? Dr. Benzel said she would like to take the performance to Illinois and North Carolina where Sandburg lived and wrote. Currently, she has been working with the Rare Book and Manuscript Library at the University of Illinois at Urbana-Champaign on another Sandburg production to complement their Sandburg holdings. And then there’s Woody Guthrie.

“I’m envisioning 1930s America and ways to document the American spirit through folk music,” she said. “Guthrie was not the first American folk musician, but he was what I would call the first American singer-songwriter; he opened the door for contemporary musicians like Bob Dylan and Bruce Springsteen.” She has already presented “Woodie Guthrie’s History and Heroes” at the Willa Cather Spring Conference in Red Cloud.

Unlike work on a shelf or the Internet, waiting to be found by other scholars, Dr. Benzel is following in the footsteps of Carl Sandburg. She is taking her work to the people. ■







# bringing peace printing peace

Printmaking: is it an art, or is it a science? It's a common debate in academia and the arts communities, but a debate that international-award winning printmaker Victoria Goro-Rapoport is at peace about, because she lives and works the answer to that question every day in her studio and classroom.

Her "peace" with this debate may also derive, in part, from the national and international success of her work. Of the numerous recognitions her work has achieved, one of the most prestigious is having had her works included in *The Big Book*, a catalog of the Miedzynarodowe Triennale Grafiki (International Print Triennial) in Krakow, Poland, an international printed art exhibition.

Since coming to UNK in 2004, her prints have been featured in more than 130 juried national and international exhibitions, and she has won six Solo Exhibition Awards. In the last four years, alone, she has won 49 national awards (15 for Best of Show or First Place) and 11 international awards. Acceptance into juried exhibitions is highly competitive. Of the national juried

exhibitions, 10 of those selected only 10 percent of the entries, and two of the international exhibitions selected fewer than 5 percent and 7.5 percent of the entries, respectively.

Although her work is highly acclaimed, both nationally and internationally, the Russian-born Goro-Rapoport talks in matter-of-fact terms about her art and her colleagues. "Being artists, we are sort of on the fringe of academia. In Russia that's how it was. There were art schools. And there were universities. But," she continues, "just like scientists, while executing my work, I strive to understand the world and how it works."

This approach is evident in her teaching as well. Students tell her over and over, "I never thought art could involve so much thinking."

"I teach art, scientifically," Goro-Rapoport said. "We take deliberate, methodical steps in the creation of a piece. Observe. Analyze data. Transfer information into an artful piece. We measure the proportion relationships of the objects and their parts. We analyze the varying value relationships and intensity of light within a piece."

The connection of art to nature, Goro-Rapoport shares, is so strong that its connection to science is undeniable. "Art,





especially in the Renaissance with artist-scientist figures like da Vinci, has always highlighted the organic relationship between liberal sciences and liberal arts. Drawing is very much mathematics. She regards the Process (with a capital “P”) as not much different from that when the laboratory technician “looked through a microscope or split the atom.”

Beyond the Art vs. Science model, dualism seems to be a recurring theme for Goro-Rapoport in this activity that serves her as both livelihood and absorb-

ing leisure. Old vs. New, industrially-speaking. Traditional vs. Technological—production-wise. Human vs. Machine. Teaching vs. Creating. Natural Talent vs. Honed Skill. Remarkably, Goro-Rapoport has created her own alphabet, she says to help her clarify in her own mind, and then express this constant theme of biformity that seems to parallel her life. Her alphabet can be detected in many of her pieces. “I am a child of two countries. I think there will always be that dualism of where I am and the question of ‘Where Am I?’” This is the creative, ever-searching world of Victoria Goro-Rapoport. Yet, emphatically, when forced to definitively label herself, she confidently states, “I am an artist. I am a printmaker.”

*“I am an artist.*

*I am a printmaker.”*

As a child in Russia, Goro-Rapoport began attending a special arts school three days a week, for four hours each, in addition to a regular school day

in the country’s traditional elementary/secondary system. She was required to pass entrance exams for this privilege, and she maintained this schedule for eight years. In 1990, at the age of 24, just as the Soviet Union was dissolving, she decided to emigrate. “There was a kind of hysteria going on in Russia then,” she recalls vividly. “It was time to get out.”

Because she is part Jewish, she was allowed to emigrate to Israel. She spent four years there during which time she opened up a framing shop and

established business relationships with the Jerusalem Printmaking Workshop/Studio Sadnat-ha-Hedpes. This daily exposure led her to begin taking classes in printmaking. Eventually, she wanted to be in closer proximity to her parents – her mother was teaching

*Born and reared  
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for four hours each*

chemistry at the University of Utah in Salt Lake City. Goro-Rapoport joined her parents there. She worked in theatre and earned a master’s degree in set design (the discipline of her bachelor’s degree). She went on to the University of Illinois at Urbana

Champaign where she finished a degree in printmaking and taught for two years. “While my early years of education were more classically-oriented,” Goro-Rapoport said, “the emphasis was mostly on traditional academic drawing and painting. This gave me a solid professional background necessary for teaching drawing and printmaking.”

A significant indication of impact and professional success in Goro-Rapoport’s field is “getting into the International Print Triennial (The Big Book) in Krakow. I personally consider the Krakow Triennial a very important show, not only because it is the biggest international show I am aware of, with the competition being very fierce, but also because it is one of the few shows that embraces Western as well as East European and Eastern traditions, without being biased to either.”

In 2000, while still a first year graduate student, three of her small engravings were accepted into The Big Book. In 2003, two of her prints, titled “Jacob’s Ladder” and “Adam’s Vision,” appeared in Miedzynarodowe Triennale Grafiki. Three years later, her “Step-

ping Out” and “Sinking of the Empire” pieces were accepted. And she has just been notified that two prints have been accepted for the 2009 exhibition.

Keeping her set design background in mind, Goro-Rapoport’s prints have been described as theatrical. Clearly, the interpretations of her mind’s eye are richly-influenced by both mythological and Biblical images. Prominent in most of her designs are the combined themes of history and modernity—specifically, the clashing antagonism but also interdependence of the two. In many of Goro-Rapoport’s images, one detects human figures being devoured by monstrous, intricate steel buildings. “In these scenes of a human figure in an industrial environment, I am asking the question of ‘Who controls whom?’” Goro-Rapoport explains. “To some degree, I think we regard the new as good and the old as not as important. I think we lose a lot when we do this. I prefer to explore the implications of their coexistence.”

Her work is partly inspired by the experiences she had living in big cities. There, she was surrealistically conscious of the human bustle buttressed against massive buildings going up as rapidly as others were razed. Her father was an engineer; she can still see the powerful steel surrendering into a melt in the gigantic kilns that were so often a part of his workplace. “I could physically feel the march of progress,” she said, “and that is a little scary.” Still, she is quick to defend and protect that line differentiating an artist’s public and professional expression from her personal beliefs and character.

“Sometimes I worry about the common tendency of the spectator not recognizing that the artist’s demeanor isn’t necessarily their art.” But like any truly enlightened artist, Goro-Rapoport thrives on others’ multifaceted perspectives. “I like to hear other interpretations. It’s invigorating to me. Maybe I think I can see something in Shakespeare, but, in actuality, I think we miss so much of his message because of his subjectivity in that time. Yet, we connect to the universal. That’s the power of art. It’s not necessarily important to know what the artist has put into it.”



*Sinking of the Empire*

62.5" x 28"  
Etching  
2006







*Darwin Versus Leonardo*  
40" x 30"  
Etching  
2006

This almost therapeutic cycle, or progression, is what Goro-Rapoport acknowledges she gains from her interaction with students. "Teaching got me back, immersed into drawing. I learn through my scholarship, and then, from my scholarship, I teach my students. It's really a kind of organic connection, I think."

Still, the nature of printmaking is ambiguous. To the beholder's eye, printmaking appears graphic. Clean. Direct. And while Goro-Rapoport agrees with those descriptions, she said that it is also extremely time consuming, immensely difficult to correct a mistake, and a dirty process laden with chemicals, dust and sharp metals. "Printmaking is a strange thing," she said. "Some fall in love with it on the spot—the process, the layers, the life of the metal, and how you can use it and abuse it. And yet, the final result is an organic, natural, live and growing piece of art. To be an effective printmaker, I

think you must be especially patient and disciplined. Printmaking, in its essence, is a sum of technical knowledge and skill, augmented, of course, by finesse."

Respectful, too, of the process and the art form is another characteristic of a successful printmaker, and one abundantly evident in Goro-Rapoport. Further, in this day, she said, commitment is called for in printmakers, because the traditional form of the art seems to be "on the brink of extinction."

As a teacher-scholar, Goro-Rapoport said that her purpose is to preserve the art by teaching her students, and continuing to submit her scholarly interpretations for constructive consideration and critique. Her learning, and teaching, and creating in printmaking, are all in sole hope of more discovery and development of the art through artists and spectators, and teachers and students. ■



Dr. Kim Carlson

## Fruitful Research

Dr. Kim Carlson could be the poster child for UNK's trend-setting research program. Her story of the journey that has brought her full-circle to her dream job—a tenured UNK associate professor of biology—is an example of the value of the program, in perfect form.

Dr. Carlson completed her undergraduate and master's degrees at UNK and the Ph.D. at the University of Nebraska-Lincoln (UNL). During all of this time, it turns out, including a "little diversion" discovering potentially HIV-preventing genes at the University of Nebraska Medical Center (UNMC) in Omaha, she was preparing to return to her true-blue alma mater, UNK, as a professor-scholar.

While conducting post-doctorate work for two years, and then working as a research assistant for three more years at UNMC, Dr. Carlson was a key player in the development of the center's core proteomics faculty. (Proteomics is a branch of molecular biology, analogous to genomics, concerning protein sets in organisms.) This opportunity allowed her the privilege of working with some of the world's best scientists in life-changing HIV research.

In essence, Dr. Carlson and her colleagues discovered a new gene. Moreover, they found that the gene appeared to be connected in a significant way to a better understanding of HIV. The scientists knew at the start, from their previous study of postmortem brain tissue, that the gene "turned itself on a lot" while "shutting off other genes" in brains with severe HIV infection. For example, Dr. Carlson said, "when the body wants to produce an eye, it turns on the genes for eye development in the facial region of the head and shuts off the genes for limb development in this same area. The process-regulating gene that was discovered is a transcription suppressor, meaning it shuts off genes instead of turning them on."



Dr. Carlson and her colleagues probed further. They chose donated healthy human white blood cells as their subject vessel, and, within a Petri dish, infected the cells with a type of virus called an “adenovirus,” that contained the new gene. “What we were trying to do,” Dr. Carlson said, “is get the cells to produce a lot of the protein made by our gene. This is the same type of technique that would be used for human gene therapy.” After the initial infection step, the scientists infected the cells with HIV.

“What we discovered,” Dr. Carlson said, “is that we suppressed the HIV level down to that of cells not infected with HIV.” The scientists realized that when the level of expression of the gene is over-expressed or increased, HIV is unable to replicate or persist in the monocytes (white blood cells). They immediately applied for a patent for their discovery of the functionality of a newly-uncovered gene—referred to as *OTK18*—after the Japanese group of scientists who first sequenced it as part of the Human Genome Project.

The number 18 is the clone number that was sequenced. In fact, there are two patents for the functionality of *OTK18*. One is for the discovery itself, and the other is for its use as a pharmaceutical agent. The latter was recently approved. *OTK18* is also patented as a treatment for HIV. Neither patent, however, has yet been approved for sale or use in humans. This patented process could possibly be used in humans at some point in the future, after more testing, including human trials.

*“What we discovered,” Dr. Carlson said, “is that we suppressed the HIV level down to that of cells not infected with HIV.”*

“and started making concerted changes that would steer me to the full-time kind of teaching situation I had always longed for.”

Undoubtedly, Dr. Carlson had her ideal situation securely set in her mind. She wanted to be at a teaching university that achieved its mission through up-close and personal mentoring and research opportunities, for undergraduate students in particular. She wanted to be in a department that made her feel she belonged, and was energetic, serious and fun, all wrapped in one, in its approach to sharing information and experiences with each other and students. Dr. Carlson also had a clear picture of

After this research-and-discovery experience, Dr. Carlson remembers thinking that what she really wanted to do was teach. Granted, she had done some teaching every semester and summer while pursuing her Ph.D. During her time at UNMC, she carried a pager, 24/7. “Here I was, a fruit-fly (research) person at heart,” she said, “being summoned to autopsies. I knew this wasn’t an area in which I could make a difference, nor was it a schedule conducive to my private life. So I threw the batteries out—not the pager; it was university property,” she said with a wink,



what she aspired to as a mentor—one just like her former professor, Dr. Doug Lund, UNK professor emeritus of biology who taught from 1962-1999. “Doug is the role model of the kind of teacher I want to be,” Dr. Carlson said with admiration. “I used to tell him that I was going to come back and take his job.” She wasn’t kidding.

Dr. Carlson is well on her way to achieving yet another serious goal. “As a geneticist, you’d think I’d be fulfilled having discovered a gene,” she laughs. “You know—been there, done that. But no, instead, now, I have this gene we discovered, but I don’t necessarily know the real ‘why’ of its existence. That bothered me.”

So, she rhetorically announced, “We need to figure out the function of this gene!” Thus commenced her current research project—and that of her students—officially categorized as “Characterization of the Homeostatic Function of *OTK18*.” With \$1.25 million over five years from the National Institutes of Health through INBRE (Idea Network of Biomedical Research Excellence), Dr. Carlson and five student scholars over the last five years have conducted not only revealing but novel research in pursuit of answers to those questions in Dr. Carlson’s scientific mind.



While the common fruit fly—scientific name *Drosophila melanogaster*—does not contain the *OTK18* gene, it has a surprisingly similar system to that of a human. Working with the flies and cell lines, Dr. Carlson and her students are observing how the fly’s system is affected by the presence of this mysterious gene—under “normal” conditions. “We keep the gene functional to see what other genes this gene binds to, or turns off,” Dr. Carlson said. “Other times we get rid of the functionality of the gene to better understand its complicated molecular biology.” Amused by the paradox, she marvels, “Somehow, the fruit fly possesses the model genetic system for us to test these theories.”

In addition to Dr. Carlson’s *OTK18* work, she and her students are studying the mystery of the aging process. Dr. Carlson’s Ph.D. work centered on aging. Some of her research questions included:

*What genes are involved in the aging process?*

*Can aging be controlled by human intervention?*

*What controls the aging process now?*

*What genes are involved at milestone points of the aging process?*

*How and why do certain genes turn on and off?*

A bit overwhelming, indeed, but Dr. Carlson, her students and 24,000 fruit flies aim to get the answers.

Some of the impressive numbers and strict procedures involved: 12,000 mated, female fruit flies in one cage; 12,000 more fruit flies in a second cage; change cage water every day; clean cages of dead flies every day; turn lights on and off at the same time every day; systematically rotate boxes. “Along the way,” Dr. Carlson said, “we pull out subsets and develop pathways and mechanisms to see what genes are changing from week to week, and what genes turn on and off each week.”

Through the tracking of specific patterns, the researchers are able to narrow down the genes involved with aging. “After all the fruit flies have died, we extract the RNA (ribonucleic acid) from 78 samples,” Dr. Carlson said. “Seven days a week. Everything same time, same way,” Dr. Carlson recites by rote. “At the beginning of each semester, I say to my students: ‘This is your lab. You don’t work for me, but with me.’”

According to Dr. Carlson, when they share what they do with colleagues and fellow students at conferences, the latter group cannot believe the amount of time and effort invested by the UNK team in this demanding research. Last Spring, one of Dr. Carlson’s students, Kylee Gardner, presented the team’s findings at the 49th Annual *Drosophila* Research Conference in



San Diego. Gardner is now a second-year student, at Creighton University Medical College in the Occupational Therapy Program. Gardner spoke on “Changes in Gene Expression Profiles Related to Mortality Over the Lifespan of Large, Caged Populations of *Drosophila melanogaster*.” Dr. Carlson said, “The poster sufficiently demonstrated that we are starting to understand the genetic regulation and mechanisms involved in the aging process. The implications are endless.”

Dr. Carlson said, “We—the students and I—couldn’t do it without each other. Or without my husband Darby (a molecular biologist and lecturer in the UNK biology department) who does his fair share of cage cleaning. Or without our wonderful building custodian, the late Art Hasbrouck, who voluntarily committed himself to turning on the lights for the fruit flies at the same time every day—can you believe that!” (Hasbrouck passed away suddenly, a few weeks before Gardner’s conference presentation.)

Obviously, it takes a certain kind of student to accomplish an undertaking as demanding as this one, and Dr. Carlson maintains that UNK is the precise institution at which such students can thrive. “UNK’s undergraduate research program offers a dream education for these students.” That is why Dr. Carlson feels so fulfilled, and so thrilled with her work, and life,



Fruit flies, the subject of Dr. Carlson’s research, are small enough to fit on the tip of a paintbrush.

at UNK. “The kind of students here, in a department like this, at a university that supports the undergraduate experience as earnestly as do the UNK faculty and administration—this is what makes the bottom line for me—that is, I am in my dream job right now.” ■

## A Classroom Opportunity



Amanda Calleroz

Research at UNK is not only beneficial for the data that is compiled; it also allows students a chance to be part of something they might not otherwise be able to experience. Biology senior Amanda Calleroz has worked with Dr. Carlson’s patented

gene, *OTK18*, to gain information which could lead to gene therapy for the HIV virus (and other diseases) in the future. The results of her study will provide information on the regulation of *OTK18* on immunity genes and allow insight into a homeostatic function of this molecule. If this information seems overwhelming, think about being an undergraduate student knee-deep in scientific research. Though the research may be complicated and, at times, difficult, Calleroz said she appreciates the opportunities at UNK. “I feel I have gained research experience that may not have been offered elsewhere or at a larger institution.” Students at UNK know their professors are willing to mentor them through not only research, but classes as well. “I will be attending medical

school in the fall, and through my participation in research, I know essential information that others may not have had the opportunity to experience. Research is imperative toward understanding science as a whole, and I feel I have gained an abundance of critical thinking skills.” Calleroz said she is grateful that UNK understands the importance of student research and allows students plenty of opportunities to participate. “I feel research is a priority at UNK, especially in the sciences.” She emphasizes that students aren’t left alone to struggle through their tough research. “To assist in the process, numerous faculty members are willing to mentor students through research projects.”



Dr. Jeanne Stolzer

# Keeping the boy in boyhood

Attention Deficit Hyperactivity Disorder, commonly known as “ADHD,” has become widely-accepted as a serious mental disorder—mostly afflicting young males. At the very least, the experts say, ADHD disrupts the learning processes, and at worst, produces violent and anti-social behavior. However, is ADHD, indeed, the serious malady it is said to be, requiring equally serious and extensive drug therapy? Or, as questions Dr. Jeanne Stolzer, associate professor of family studies, is it more likely merely a manifestation of male patterned hominid evolution. Challenging widely held assumptions is an important part of what investigators do, especially on important topics like childhood development.

Dr. Stolzer, a member of the advisory board for the International Center for the Study of Psychiatry and Psychology, has

published her work on three continents. She is also the sole author of the ADHD entry in *The Encyclopedia of the Life Course and Human Development* (2009). Most recently, she has questioned conclusions of previous research on ADHD in an article titled “Boys and the American Education System: A Biocultural review of the Literature,” (*Ethical Human Psychology and Psychiatry; An International Journal of Critical Inquiry*, November 2008). Here, as well as in her previous presentations, Dr. Stolzer challenges her professional colleagues, and even the American Psychiatric Association (APA), on the reliability and validity of their findings and official statements about ADHD.

Dr. Stolzer maintains that in the 1950s, ADHD did not exist. (“The ADHD Epidemic In America,” *Human Psychology*

and *Psychiatry*, Volume 9, Number 2, 2007). In 1970, 2,000 American children were diagnosed as “hyperactive,” and the standard method of treatment was behavior modification. By 2003, six million American children had been diagnosed with a “brain disorder” called ADHD, and the vast majority of these children have been prescribed psychotropic medications in order to control their disruptive behavior (Stolzer 2005, p. 37). Subsequently, she’s asking the medical field and society at large: “Do millions of American children actually suffer from unprecedented brain disorders? And, if so, what could have altered the developing brains of our children to such an extent that millions of American children are diagnosed with “disorders of the brain” when only a generation ago this epidemic was unheard of? Moreover, how have we





successfully convinced academicians, physicians, teachers and parents across this country that what was once considered typical, normal and desirable boy behavior is now the result of an atypical brain?

According to Dr. Stolzer, after a decade of research on the issue, the answers to these inquiries are partly based on the phenomenon of macrosystemic functioning—that which consists of overarching patterns found in a given culture, like ideologies, world views and belief systems. Dr. Stolzer says that America's macrosystem, on the subject of ADHD, has been greatly altered over the last generation. "What were once regarded as normal-range child behaviors are now defined as 'disorders of the brain,'" she said.

She remembers laughing, nearly 30 years ago, at how the little boys in her preschool class climbed fences, yelled at the top of their lungs and battled out mock wars on the merry-go-round, while across the playground, most of the little girls were dialoguing, conducting interpersonal communication and acting out

dramatic play. She said that she took joy in observing the freedom of kids being kids while at the same time asking herself, "What would be the motivating force

*"The dear old lady leaned into me and whispered, 'Honey, that little one has ants in his pants. He needs to get out and play!'"*

and waiting at home for their tired parents to get home from work," she said. "Working moms were, understandably, physically, emotionally and psychologically,

behind our trying to make our children into passive, sedentary robots?"

During this time of Dr. Stolzer's foundational observations, the era of the Super-Mom was also building. "Our country's children were going to day-care from six-weeks-old, attending overcrowded classrooms

drained, and, thus, vulnerable and much more likely to accept labels about their child to justify their exasperation with their child's energetic behavior." Now, as we as a society begin to acknowledge these histories and changes, Dr. Stolzer wholeheartedly suggests that "instead of it being the 'disordered child' we medicate with a chemical that changes the neurological structure of the brain, perhaps we need to look at the disordered world we have created for our children in 21st century America."

In "ADHD in America: A Bioecological Analysis," (*Ethical Human Psychology and Psychiatry*, Volume 7, Number 1, Spring 2005), Dr. Stolzer suggests that perhaps relationship changes occurring within the microsystem—defined as a pattern of activities, roles and interpersonal relationships experienced by the developing person in a given face-to-face setting with particular physical and material features—have made parents more willing to accept the "myth" of ADHD.

As a mother, Dr. Stolzer entertained

the premises of ADHD for a time, too. Like so many parents, she remembered the experiment where child psychologists observed a random group of boys and girls in a room full of all kinds of toys, from trucks to baby dolls. With no outside influence, the majority of boys, if not all, went straight to the wooden guns and plastic battalions of soldier figures, while the girls proceeded to plan parties with the tea sets and Barbie dolls. "When I tried to 'socialize' my son, in a similar manner as this famous experiment," Dr. Stolzer said, "he still insisted on being a boy." If Dr. Stolzer offered her son a doll to play with, for instance, he was enthusiastic-enough about the idea; it's just that he was inspired to play with it by wielding it around like a sword in aggressive, combative-like play.

For Dr. Stolzer, the kicker in this discovery was her realization that what she means by "insisting on being a boy" seemed to parallel the behavior the APA (*Diagnostic and Statistical Manual of Mental Disorders*, DSM-IV), lists as the symptoms of the still-relatively-new disorder, ADHD. "These are not symptoms,"

*"Behaviors are behaviors, not a disease. This 'affliction' is called boyhood!"*



Dr. Stolzer said. "These are behaviors—normal behaviors that have been recorded in young males across cultures, across time and across mammalian species.

"The prefrontal lobes aren't fully developed until the early 20s in males. Testosterone during puberty increases 18-fold. Couple these facts with an underdeveloped brain and the surge of hormones, and what you have is lack of impulsivity control, a high activity level and defiant behavior. Furthermore," she said, "behaviors are behaviors, not a disease. This 'affliction' is called boyhood." (Stolzer 2005, p. 78)

Dr. Stolzer argues that although many American medical professionals insist that ADHD is neurologically induced, the fact of the matter is that there are no physiological, cognitive or metabolic markers that would indicate the presence of ADHD. Rather, "ADHD is diagnosed using a checklist of behaviors indicated on a questionnaire, usually filled out by teachers or parents." (Stolzer, 2007, p. 39)

Eighty percent of the Ritalin prescriptions issued to the 8 - to -10 million American children diagnosed with ADHD are given to American boys. Dr. Stolzer writes: "It has been hypothesized that the behavior of boys has remained relatively constant over evolutionary time; what appears to have changed is a) America's perception of those unique and historically valued evolutionary behaviors and b) Americans' willingness to unconditionally accept the newly formed disordered brain hypothesis." (Stolzer, 2007, p. 42)

"Interestingly," Dr. Stolzer said, "ADHD rates in child populations vary considerably from school to school; private schools that, incidentally, do not benefit economically from labeling students tend to have much lower rates of ADHD in their populations." (Stolzer 2005, p. 70). Well-aware of the polemic tone in her experiential research, Dr. Stolzer said she fears that because of the financial incentive involved, ADHD diagnoses will continue to skyrocket in the U.S.

Once the ADHD label is affixed, Dr. Stolzer said, children are no longer viewed as normal. "And labels don't go away," she said, observing that "all school shooters have been therapeutic users of psychotropic medications. The manufacturer clearly states that psychotropic drugs can cause homicidal and suicidal ideation and violent psychotic



episodes.” The fact of the matter, Dr. Stolzer maintains, is that professionals have no idea of the long term outcome of taking substances like Ritalin for a condition like ADHD.

The ADHD model, she said, does not take into account the complexities associated with growing up in modern-day America, nor does it address America’s unique and bioevolutionary heritage. “Hypothetically speaking,” she said, “it is a possibility that millions of American boys

*“Boys will be boys.”* suffer from a neurological condition

known as ADHD. Scientifically speaking, it is much more rational to assume that ADHD-type behavior is evolutionarily adaptive, has been perfected over millions of years, and has ensured the survival of the human species.” (Stolzer 2007, pp. 42-43)

She concludes, “Simply put? I don’t think ADHD is anything that can’t be ‘cured’ by a loving hand, logical consequences, time and attention, large amounts of rigorous outdoor play and the understanding that boys do not now, nor have they ever, followed the script set forth by their female cohorts.”

Dr. Stolzer is now looking for possible alternatives to Ritalin that American’s, as a society, might consider. She is also analyzing the implications of restructuring some of the societal approaches. For instance, she encourages more home-schooling and advocates testing for the possibility of ADHD in candidates from a neurological perspective rather than a behavioral one. And, finally, she promotes continuing education of the public about evolutionarily-based gender differences. “We must demand that unbiased empiri-

cal scientific data are guiding us. After all,” she said, “what is research if it is not to change something that you care about, for the better? Isn’t that why we are all here on a campus—the arena for free and boundless thought?” Dr. Stolzer said that authentic research—which, by her definition is, among other things, research not funded by pharmaceutical companies—must be the goal. (Stolzer 2007, pp. 40-41 and Stolzer 2005, p. 72)

If there ever is a time when she doubts the worth of her scholarship, she reminds herself of the volumes taught to her one day in church by a wise old lady. A little boy in the next pew was growing restless, after sitting quietly for a long span.

“The dear old lady leaned into me and whispered, ‘Honey, that little one has ants in his pants. He needs to get out and play!’”

“Ah yes,” Dr. Stolzer thought, “boys will be boys.” ■



## Playing your way to fitness

*Can Nintendo’s Wii prevent or reduce obesity?*

*What, if any, are the health benefits of playing Nintendo Wii?*

Dr. Greg Brown’s passion for research is fed by these and other questions that he and his students have about one of the newest phenomena of the computer age—the Wii. “I want to be able to answer students’ questions,” said the associate professor of health, physical education, recreation and leisure studies (HPERLS).

Wii (pronounced “we”) is a video game that offers players the virtual experience of playing tennis, boxing in the ring, and a number of other physical activities that normally occur outside or on a large playing field, all while in the comfort of their living room. The games are played using a handheld wireless remote that functions as a pointing device and detects movement in three dimensions. As a result, players actually go through the motions of a full tennis backswing or a deep lean to ski around a corner on a mogul course. A player can compete against another player or the computer.

In this computerized age, Wii has become popular with both children and adults. Couples are nurturing their relationships with some friendly bouts in the Wii boxing ring. Physical therapists are prescribing Wii activity for their patients’ rehabilitation. Parents are excited about Wii Fit, a fitness program they can do with their children. And adolescents are perfecting dance moves with Dance Dance Revolution (DDR).

The Wii has players up off of their couches, but are the activities increasing fitness levels? Dr. Brown and his students decided to study the effects of playing Wii on the fitness levels of youth. Specifically, they wanted to test whether Wii activities would significantly increase energy expenditure, and if so, to what extent?





Their first exploration involved the study of 25 typical, energetic children, with an average age of 11 years. The children were evaluated for aerobic fitness and body composition, as well as questioned about their physical activity and use of video games.

"They were all typical children," Dr. Brown said, "but they represented a good variety in body composition, physical activity and overall fitness."

These young research subjects were given the assignment to play. And then play some more. They played Wii tennis, boxing and DDR. In DDR, they had to repeat dance step sequences that progressed in length and speed. They also played a more traditional racing video game in which they just pushed buttons with their fingers and thumbs.

The student researchers, working in the UNK Human Performance Laboratory under the guidance of Dr. Brown, evaluated energy expenditure by measuring the children's heart rate and oxygen consumption while they played.

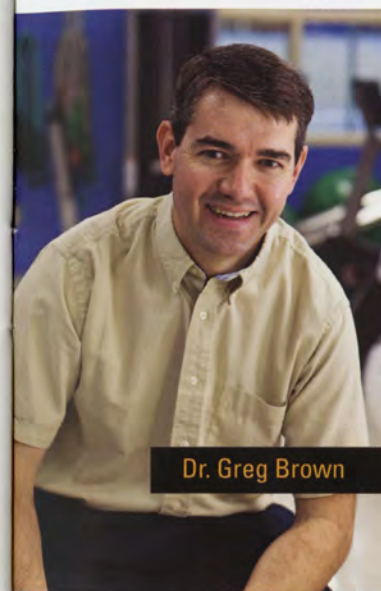
"The initial visual results certainly suggested that Wii-type of activity seemed to have the capacity for physical fitness,

because the subjects were moving at levels well beyond, say, the little bit of thumb-pushing required for playing regular video games," he said. Dr. Brown and his students suspected that DDR, in particular, would be a strenuous workout for the children.

However, their research findings surprised Dr. Brown and his students. For one, physical activity rates didn't differ much between the DDR and Wii Boxing readings.

"The energy expenditures while playing Wii Boxing and DDR were about threefold higher than the kind of readings we would see in the kids when they were in a resting state or just using a video game controller with buttons," he said. "However, a threefold increase over resting still does not meet established guidelines for what constitutes health promoting exercise.

"None of the activities we had the kids engage in turned out to be a replacement for conventional forms of exercise like running, biking or playing real sports," he said. "Rather, the physical benefits of Wii-type activity aren't much different from those gained from a casual walk with a dog or someone you're in love with...scientifically speaking of course."



Dr. Greg Brown

Since this first research project, subsequent research by Dr. Brown and his students, along with other outside studies, have continued to strongly suggest that Wii-type of play should not be categorized as fulfilling any sort of standards or guidelines for health-improving exercise.

Dr. Brown has presented the findings from his research at a host of professional conferences including that of the American College of Sports Medicine. Furthermore, Dr. Brown and his students have been interviewed as experts by several national print and Internet media, including *USA Today*, *WebMD* and a cover story in the August 2008 issue of *BioMechanics*.

The video game research has been well received in the scientific community as well. An abstract titled "Energy Costs of Physically Active Video Gaming in Children: Wii Boxing, Wii Tennis and Dance Dance Revolution" was published in the June 2008 issue of the journal *Medicine & Science in Sports & Exercise*.

Additionally, Dr. Brown's research was cited as authoritative information on exercise science in the Internet coverage titled "Exergames Get People Off the Couch, Into Fitness; Research on Their True Benefits Is Still Lacking, but Electronic Challenges Do Encourage Movement":

"The disappointing thing is, it's still not moderate exercising," said Gregory Brown, (associate) professor of exercise science at the University of Nebraska at Kearney, who has studied energy burned playing video games. He studied 25 children playing several exergames and regular video games. Played for 30 minutes, Wii Boxing burned 65 calories; Dance Dance Revolution, 63; and Wii Tennis, 57. A regular video game burned 24 calories, just slightly more than sitting. Playing harder can burn more. Brown has even worked up a sweat himself playing Wii Boxing. His bottom line? "I would not recommend these as a replacement for exercise, but they can be a way to become more physically active during the day." (August 2008, *Indiana Star*)

"Granted, as both boys and girls figure out how a game works, they probably don't have to move as much, but the physical activity they do employ in this virtual type of video game exercise is much better than just sitting on the couch moving their fingers," he said. At the same time, he holds, too, that there are surely some benefits to the Wii—socially, mentally and emotionally.

In conclusion, he said: "It's innovative. It's fun playing against another person. It's a whole new way of playing—what's not cool about that!" ■



## A Classroom Opportunity

For exercise science senior Jessica McWha, university-level research can really be fun and games. Working alongside Dr. Greg Brown, she was surprised to learn the results in her research—"Energy Expenditure While Playing Nintendo Wii: Boxing. Against a Computer vs. a Human Opponent"—weren't what she was expecting. "The Wii boxing game is not considered moderate or vigorous exercise, so it can't replace regular physical exercise as a person's only means of physical activity," McWha said. And it didn't matter if the participants battled it out against man or machine, the subjects tried equally as hard when playing against a human or computer opponent. The

results still fell short of the level to be effective in meeting the fitness needs for 11-year-olds. Though Nintendo's Wii boxing game may not be quality exercise, it may have other healthful uses. McWha said, "Many nursing homes are allowing their patients to play the Wii, which is exciting and beneficial for them. It gets them up and moving, and allows people in wheelchairs to be able to play some of these active video games." She further notes that "The Wii is used in physical rehab settings which could help elderly patients gain back their range-of-motion in a fun and creative way." Overall, the Wii experience allows individuals who can't play the real games to engage in forms of play which contribute to their mental and emotional health. McWha recently presented her work at the American College of Sports Medicine conference.





Dr. Joan Lewis

## Long Distance Bridge Builder

Dr. Joan Lewis is ready to begin her night class, and she is the only one in the room. She opens the course's Blackboard site. In a monitor on the far wall, she sees that her student in Omaha has arrived. She opens a virtual chat, and quickly the classroom fills—not with bodies, but with the presence of people who want to learn.

Miles, or hundreds of miles away, Dr. Lewis' image and her lessons appear on students' computer screens. They have probably already finished a full day of teaching, some in one-room schoolhouses and others in huge urban districts.

Most log on to the live video, but others may wait and get it from the archive later, or watch it again when they have more time. Still others will stay after class, using their Webcams and instant messaging to get some added one-on-one instruction.

Dr. Lewis may never see some of her students face-to-face, but she views each as an individual, with individual needs. By reaching students wherever they are, in ways that fit their lives, she is simply practicing the educational philosophy she tries to pass on.

"We need to recognize the diverse needs to be served within any student population," she said, "and treat (students) as individuals."

Dr. Lewis, a professor in the Department of Teacher Education, teaches all six classes in UNK's online Gifted Education Endorsement. In addition, she chairs the department's graduate

program committee and is the gifted education specialist for the entire University of Nebraska system. Since 1993, Dr. Lewis has published more than a dozen articles on gifted learners, her chapter on "Advocacy for Public Relations" in a methods and materials book is in its third edition, and she has written two books aimed at helping schools, parents and teachers improve gifted education. Her latest book, *The Challenges of Educating the Gifted in Rural Areas*, was released in May.

Through her teaching, research and writing, Dr. Lewis said she hopes to build bridges among the many people who want to improve America's gifted education programs, adding that collaboration, whether among communities or professionals, is key to delivering instruction that will meet the needs of each individual student.

Dr. Lewis took "a circuitous route" to her own interest in gifted education, beginning in southern California where she earned her bachelor's degree in bacteriology. Only after moving several times with her husband's job, and raising two daughters, both having benefited from many years in a gifted education program, did Dr. Lewis get her master's degree in education. She had volunteered at a school while in Mississippi, she said, and the way she interacted with the students got the district's attention. She became part of a committee revising the school's gifted program, and then became a substitute teacher for the elementary and junior high gifted classes. "Long story short, I decided I loved it."

Dr. Lewis earned her Ph.D. in special education, with an emphasis in gifted education, from the University of Southern Mississippi in 1994. She said that at first she focused mostly on the needs of gifted girls, gifted minority students, advocacy, and encouraging the use of technology in public school and university instruction.

Educators have long faced special challenges when they start to develop programs for students who show high abilities, she said. The difficulties begin with defining what qualifies a student as gifted and identifying those students, particularly students

who come from underserved populations (e.g., English Language Learners, minority and low income students, and those who also have a disability).

*"We need to recognize the diverse needs to be served within any student population"*

They continue as schools develop their programs, with debate over questions such as whether gifted students should receive enhanced instruction in their regular classrooms in their areas of strength, or spend time each day in separate enriched and accelerated classes. The bottom line is

they need both based on their unique strengths. And as with all educational efforts, Dr. Lewis said, supporters struggle to fund the kind of programs they want to deliver.

The result has been uneven opportunities for high-ability students in this country, Dr. Lewis said. In some school districts,





gifted education is minimal or nonexistent, while gifted students in other districts have the opportunity to learn much more. Certain groups of students are more likely than others to miss out on those opportunities, and Dr. Lewis said much of her recent work has focused on the needs of rural students.

"My emphasis is (on) rural education now, because I've had it called to my attention there is such a need," she said. While she saw that need in small Mississippi districts, Dr. Lewis said the point was driven home when she came to UNK in 1998. She arrived just after the Nebraska Legislature passed a bill that provided \$3 million to help schools identify and develop programs for high-ability, or gifted, learners. For UNK, that meant many more Nebraska teachers who would need training.

"In the fall of 1999, I had seven practicum students in the Panhandle," Dr. Lewis said. "The closest was in Bridgeport." Driving to their schools and others around the state for observational visits, she learned just how isolated some schools, and therefore teachers, can be. One building seemed more the size of a playhouse to her than a school; at another, she encountered students for the first time who "boarded" in town, because they lived too far away to drive every day.

Smaller schools offer a lot of benefits, but also tend to have less money and fewer resources, Dr. Lewis said. Among the challenges she outlines in her book are some tied to the low student population—rural teachers often have only a few students who qualify as gifted, which can leave those students socially and intellectually isolated. It can also be difficult to give those students learning opportunities that match their abilities, Dr. Lewis writes. For example, field trips to museums or concerts or planetariums are commonplace in metropolitan gifted education programs. In rural areas, the cost and time involved make those trips impossible.

Community attitudes in rural areas can also be an obstacle for gifted learners, Dr. Lewis notes, because programs for high-ability students can draw fire as being elitist. It can go against a community's ideas of fairness and equality to identify some children as gifted, Dr. Lewis said, but she said that she feels the true inequality comes from treating all students as if they were the same.

"Every child should have the opportunity to learn at their ability level and work up to their ability," she said.

Like the first book Dr. Lewis authored, *Advocacy for Gifted*

*Children and Gifted Programs: The Challenges of Educating the Gifted in Rural Areas* is part of the Practical Strategies Series in Gifted Education. According to Dr. Lewis, the series is aimed at providing everyone interested in gifted education—teachers, parents, administrators and others—information about the latest instructional techniques.

Sharing information and involving all supporters is essential for gifted education programs to flourish, Dr. Lewis said. That belief is a guiding principle of her previous book, which gives supporters ways to advocate for and promote gifted programs. It also led her to accept the challenge when the series editors asked her to write a second book. Several of the strategies Dr. Lewis offers her readers involve technology, which she said has created many new opportunities in all areas of education. Using electronic materials, such as videos and ebooks, is one way for educators to work within a small budget. Dr. Lewis' suggestions also include using virtual field trips and online social networking features, such as blogs and listservs, to reduce rural students' and teachers' sense of isolation.

Utilizing new technology is something at which Dr. Lewis has become expert since her early semesters at UNK. Hired to teach distance education classes, Dr. Lewis said at first she broadcast lessons to only Nebraska sites capable of receiving the one-way satellite transmission. She learned each

new technology as it became available, and today is able to reach students anywhere in the world.

All students need is an Internet connection, and they can watch her lectures, either by logging onto a real-time streaming video or taking a link to an asynchronous stream. They can download

class materials from Blackboard and engage in virtual chats. This spring, she began using Wimba software which makes it easier for her to share audio and video files with her students.

Dr. Lewis uses the same technology to connect her students to the larger world of gifted education. Through her class sites, they can network with other educators, find out about new resources and techniques, or reach one of the professional organizations of which Dr. Lewis is a part. She has created Blackboard pages for the Nebraska Association for Gifted and the Nebraska's Creative Association for Problem Solvers to facilitate meetings and disseminate materials.

Bringing people, ideas and resources together is a goal in all of Dr. Lewis' work. According to Dr. Lewis, collaboration is the real answer to the challenge of giving all gifted students a chance to reach their full potential, an idea she sums up in the introduction of her book with a simple call to action: "The idea is to accomplish together what cannot be done separately." ■



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Dusty Birge from Benkelman and Aaron Smith from Allen continue a class discussion in University View in Nester Hall.

